REMARKS/ARGUMENTS

These remarks are made in response to the Office Action of August 7, 2007 (hereinafter Office Action). As this response is timely filed within the three-month statutory period, no fee is believed due. Nonetheless, the Examiner is expressly authorized to charge any deficiencies or credit any overpayment to Deposit Account No. 50-0951.

In the Office Action, Claims 1-10 and 13-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,604,077 to Dragosh, *et al.* (hereinafter Dragosh) in view of U.S. Patent No. 6,408,272 to White, *et al.* (hereinafter White) and further in view of U.S. Patent No. 6,560,590 to Shwe, et al. (hereinafter Shwe).

Amendments to the Claims

Although Applicants respectfully disagree with the rejections in the Office Action, Applicants nonetheless have amended the claims in order to expedite prosecution of the present application by further emphasizing certain aspects of the claims. Applicants respectfully assert, however, that the claim amendments presented are not intended as, and should not be interpreted as, the surrender of any subject matter. Applicants are not conceding by these amendments that any previously submitted claims are unpatentable over the references of record. Applicants' present claim amendments are submitted only for purposes of facilitating expeditious prosecution of the present Application. Accordingly, Applicants respectfully reserve the right to pursue any previously submitted claims in one or more continuation and/or divisional patent applications.

In this response, Applicants have amended the independent claims to emphasize certain aspects of the claims. In particular, the independent claims have been amended to clarify the process and emphasize the circumstances in which a local or a remote processing location is elected for processing a selected grammar. Such amendments are

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fully supported throughout the specification, as discussed below. Additionally, new Claims 26-30 are presented. These claims are directed to a client device for carrying out the methods claimed in independent Claims 1 and 14 and are also fully supported throughout the Specification. Additionally Claims 5, 7-10, 13, 18, and 20-25 have been cancelled by this amendment. The remaining original and previously-presented claims have been amended to maintain consistency among the claims. No new subject matter has been introduced by these amendments.

Aspects of the Claims

Prior to discussing the cited references, it may be useful to discuss certain aspects of the claims. The claims, as amended, recite systems and methods for a client device connected to network to determine whether to process speech input for a speech recognition system of the device using local processing resources or remote processing resources of a speech server operating on a network. A method, typified by Claim 1, can include selecting a speech grammar and characterizing the selected speech grammar. (See, e.g., pg. 10, lines 5-13; pg. 12, lines 3-13.) The characterization can include determining a size and a complexity of the selected grammar and a preferred processing location specified by the selected grammar. (See, e.g., pg. 12, lines 14-22.) The method can also include determining a processing power of the client device and of the remote speech server, along with a speed of a network connection between the client device and the speech server and determining a feedback requirement for the speech recognition system. (See, e.g., pg. 10, lines 14-26; pg. 12, ln. 23 – pg. 13, ln. 5.)

The method can also include – based on the characterization of the selected speech grammar, the determined network connection speed, the determined processing power of the network connected client device and the remote speech server, and the feedback requirements – electing whether to process the entire selected speech grammar in a preferred location or another location different from the preferred location, the election

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being made before processing the speech audio. (See, e.g., pg. 10, lines 14-26; pg. 12, ln. 23 – pg. 13, ln. 5.) In the method, a preferred location specifies the network connected client device or the speech server. (See, e.g., pg. 10, lines 14-26; pg. 12, lines 3-13.)

In cases where the preferred location specifies processing using the speech server, the client device can elect to use the client device for processing if real-time feedback is required by the speech recognition system and a processing power of the client device is sufficient for the client device to process the selected grammar in real-time based on the size and complexity of the selected grammar. (See, e.g., pg. 7, lines 11-23.) However where the preferred location specifies processing in the client device, the client device can elect to use the remote speech server if a latency in processing the selected speech grammar, based on the network speed and the speech server processing power, is sufficient to meet a feedback requirement of the speech recognition system. (See, e.g., pg. 7, lines 1-10; pg. 12, ln. 23 – pg. 13, ln. 5.)

The Claims Define Over the References

In the Office Action, the claims were rejected under the combination of Dragosh, White, and Shwe, alone or in combination with one or more references of record. Dragosh discloses a system and method for using remote resources for speech recognition capabilities. White discloses a system for determining when local speech processing resources are insufficient. Shwe discloses selecting a subset of an existing grammar for based on processor load. However, Applicants respectfully submit that these references fail disclose each and every element recited in the claims, as amended.

In particular, the references fail to disclose the limitation that the ultimate decision to use a local or a remote processing location can defer to a preference specified in the grammar itself, while being subject to a determination that the preference is not contrary to the feedback requirements of the speech processing system. For example, the independent claims, as amended, recite the following limitations:

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> *wherein if said preferred location specifies said speech server, said client device elects said client device if real-time feedback is required by said speech recognition system and a processing power of said client device is sufficient for said client device to process said selected grammar in real-time based on said size and said complexity of said selected grammar, and*

> *wherein if said preferred location specifies said client device, said client device elects said remote speech server if a latency based on said network speed and said speech server processing power is sufficient to meet a feedback requirement of said speech recognition system*

In other words, the claims specify that although the preferred location would normally be elected for processing the speech input, in at least two cases, the feedback requirements can supersede the preference. In the first case, the preference to process remotely is ignored if the processing power of the client device is able to process the grammar to meet real-time requirements. In the second case, the preference to process locally is ignored if the latency from processing remotely does not impact feedback requirements. Such a configuration allows a client device, even ones capable of processing a selected grammar, to preferentially use the remote resources unless real-time feedback is required. As such, the client device can, in cases where real-time feedback is not required, transfer processing to remote processing resources and reduce the amount of the limited local resources used, increasing the overall efficiency of the speech processing.

The references fail to disclose such limitations. First, it is asserted in the Office Action that Dragosh and White disclose making a determination that a local device cannot process a grammar and deciding to process the grammar remotely. However, nowhere does Dragosh or White disclose transferring speech recognition processes to a remote server in cases where the local device can process the grammar. In fact, Dragosh and Ehite explicitly recite systems and methods that only move processes to remote systems in cases where the local processing power is insufficient. In contrast, the claims

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as amended, explicitly recite moving any process to a remote server as long as the latency does not impact feedback requirements, based on network speed and processing power of the remote speech server.

Shwe discloses choosing a grammar to process based on processor load, as also asserted in the Office Action. Nonetheless, Dragosh, White, or Shwe fail to disclose making such a decision based on a *total* latency associated with using a remote resource, which includes network connection speed. Furthermore, Shwe nowhere discloses, suggests, or renders obvious the step of processing speech remotely even if the local resources are sufficient. As such, Dragosh, White, and Shwe all fail to disclose or suggest balancing preferred processing location versus feedback requirements to preferably offload grammar processing not requiring real-time feedback, even if such grammar processing can be efficiently handled by the local resources.

Accordingly, Dragosh, White, and Shwe, separately or in combination with each other or any other reference of record, fail to disclose, suggest, or render obvious each and every element of the independent claims, as amended. Applicants therefore respectfully submit that the independent claims define over the references of record. Furthermore, as the remaining claims each depend from one of the independent claims while reciting additional references, Applicants submit that the dependent claims likewise define over the references of record.

CONCLUSION

Applicants believe that this application is now in full condition for allowance, which action is respectfully requested. Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the

Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

                                    Respectfully submitted,

Date: <u>November 5, 2007</u>   /Richard A. Hinson/
                                    Gregory A. Nelson, Registration No. 30,577
                                    Richard A. Hinson, Registration No. 47,652
                                    Eduardo Quinones, Registration No. 58,575
                                    AKERMAN SENTERFITT
                                    Customer No. 40987
                                    Post Office Box 3188
                                    West Palm Beach, FL 33402-3188
                                    Telephone: (561) 653-5000

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